WHAT IS CLAIMED IS:

1. A method for balancing input/output load for a plurality of storage devices, the method comprising:

monitoring accesses to chunks located on the storage devices, wherein each chunk comprises one or more file system clusters;

storing data indicating a number of accesses to each chunk;

determining a list of most frequently used chunks based on the data indicating the number of accesses to each chunk; and

balancing the most frequently used chunks across the plurality of storage devices.

2. The method of claim 1,

wherein the plurality of storage devices comprises a plurality of disks.

3. The method of claim 1,

wherein one or more volumes are stored on the plurality of storage devices; and

wherein said monitoring accesses to chunks located on the storage devices comprises, for each volume, monitoring accesses to chunks located in the volume.

4. The method of claim 1, further comprising:

displaying a graphical user interface for controlling said monitoring; and

receiving user input to the graphical user interface requesting to start said monitoring;

wherein said monitoring accesses to chunks located on the storage devices is performed in response to the user input requesting to start said monitoring.

5. The method of claim 1, further comprising:

displaying a graphical user interface for setting properties of said monitoring; and

receiving user input to the graphical user interface specifying one or more properties of said monitoring;

wherein said monitoring accesses to chunks located on the storage devices is performed in accordance with the specified one or more properties.

6. The method of claim 5,

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a size N for the list of most frequently used chunks;

wherein said determining the list of most frequently used chunks comprises determining the N most frequently used chunks.

7. The method of claim 5,

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a chunk size;

wherein said monitoring accesses to chunks located on the storage devices comprises monitoring accesses to chunks having the specified chunk size.

8. The method of claim 5,

wherein a plurality of volumes are stored on the plurality of storage devices;

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a chunk size for each volume;

wherein said monitoring accesses to chunks located on the storage devices comprises, for each volume, monitoring accesses to chunks located in the volume having the specified chunk size for the volume.

9. The method of claim 1,

wherein said monitoring accesses to chunks located on the storage devices comprises one or more of:

monitoring read accesses to the chunks; and/or

monitoring write accesses to the chunks.

10. The method of claim 1, further comprising:

displaying information indicating the number of accesses to each chunk.

11. The method of claim 1,

wherein said balancing the most frequently used chunks across the plurality of storage devices comprises, for each of at least a subset of chunks in the list of most frequently used chunks, relocating file system clusters in the chunk to a different storage device in the plurality of storage devices.

12. The method of claim 1,

wherein said monitoring accesses to chunks located on the storage devices, said determining the list of most frequently used chunks, and said balancing the most frequently used chunks across the plurality of storage devices are performed repeatedly at periodic intervals.

13. The method of claim 1,

wherein said balancing the most frequently used chunks across the plurality of storage devices includes relocating a first file system cluster from a first storage device to a second storage device;

wherein the method further comprises determining a first location on the second storage device to which to relocate the first file system cluster;

wherein said relocating the first file system cluster from the first storage device to the second storage device comprises relocating the first file system cluster to the first location on the second storage device.

14. The method of claim 13,

wherein said determining the first location on the second storage device to which to relocate the first file system cluster comprises determining a location on the second storage device at which the first file system cluster can be accessed rapidly.

5   15.   The method of claim 13,

wherein the second storage device comprises a disk;

wherein said determining the first location on the second storage device comprises determining a location near the center of the disk;

wherein said relocating the first file system cluster to the first location on the

10   second storage device comprises relocating the first file system cluster to the location near the center of the disk.

16.   A method for balancing input/output load for a plurality of storage

15   devices, the method comprising:

monitoring accesses to file system clusters located on the storage devices;

storing data indicating a number of accesses to each cluster;

determining a list of most frequently used clusters based on the data indicating the number of accesses to each cluster; and

20   balancing the most frequently used clusters across the plurality of storage devices.

17.   The method of claim 16,

wherein the plurality of storage devices comprises a plurality of disks.

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18.   A system comprising:

one or more processors; and

a plurality of storage devices;

wherein the one or more processors are operable to execute program instructions

30   to:

monitor accesses to chunks located on the storage devices, wherein each chunk comprises one or more file system clusters;

store data indicating a number of accesses to each chunk;

determine a list of most frequently used chunks based on the data indicating the number of accesses to each chunk; and

balance the most frequently used chunks across the plurality of storage devices.

19.   The system of claim 18,

wherein the plurality of storage devices comprises a plurality of disks.

20.   The system of claim 18,

wherein one or more volumes are stored on the plurality of storage devices; and

wherein said monitoring accesses to chunks located on the storage devices comprises, for each volume, monitoring accesses to chunks located in the volume.

21.   The system of claim 18,

wherein the one or more processors are further operable to execute program instructions to:

display a graphical user interface for controlling said monitoring; and

receive user input to the graphical user interface requesting to start said monitoring;

wherein said monitoring accesses to chunks located on the storage devices is performed in response to the user input requesting to start said monitoring.

22.   The system of claim 18,

wherein the one or more processors are further operable to execute program instructions to:

display a graphical user interface for setting properties of said monitoring; and

receive user input to the graphical user interface specifying one or more properties of said monitoring;

wherein said monitoring accesses to chunks located on the storage devices is performed in accordance with the specified one or more properties.

23. The system of claim 22,

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a size N for the list of most frequently used chunks;

wherein said determining the list of most frequently used chunks comprises determining the N most frequently used chunks.

24. The system of claim 22,

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a chunk size;

wherein said monitoring accesses to chunks located on the storage devices comprises monitoring accesses to chunks having the specified chunk size.

25. The system of claim 22,

wherein a plurality of volumes are stored on the plurality of storage devices;

wherein said receiving user input to the graphical user interface specifying one or more properties of said monitoring comprises receiving user input specifying a chunk size for each volume;

wherein said monitoring accesses to chunks located on the storage devices comprises, for each volume, monitoring accesses to chunks located in the volume having the specified chunk size for the volume.

26. The system of claim 18,

wherein said monitoring accesses to chunks located on the storage devices comprises one or more of:

monitoring read accesses to the chunks; and/or

monitoring write accesses to the chunks.

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    27.   The system of claim 18,

wherein the one or more processors are further operable to execute program instructions to:

display information indicating the number of accesses to each chunk.

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    28.   The system of claim 18,

wherein said balancing the most frequently used chunks across the plurality of storage devices comprises, for each of at least a subset of chunks in the list of most frequently used chunks, relocating file system clusters in the chunk to a different storage

15   device in the plurality of storage devices.

    29.   The system of claim 18,

wherein said monitoring accesses to chunks located on the storage devices, said determining the list of most frequently used chunks, and said balancing the most

20   frequently used chunks across the plurality of storage devices are performed repeatedly at periodic intervals.

    30.   A memory medium comprising program instructions executable to:

25   display a graphical user interface for setting properties for monitoring accesses to chunks located on a plurality of storage devices, wherein each chunk comprises one or more file system clusters;

receive user input to the graphical user interface specifying one or more properties of said monitoring; and

communicate with a first program to request the first program to monitor accesses to chunks located on the plurality of storage devices in accordance with the one or more specified properties;

wherein the first program is operable to monitor accesses to the chunks located on the plurality of storage devices to store data for balancing most frequently used chunks across the plurality of storage devices.

31.   The memory medium of claim 30,

wherein the plurality of storage devices comprises a plurality of disks.

32.   A memory medium comprising program instructions executable to: ⌐

receive information indicating access statistics for a plurality of chunks located on a plurality of storage devices, wherein each chunk comprises one or more file system clusters;

for at least a subset of the plurality of chunks, determine a location to which to move the respective chunk; and

perform one or more file system calls to cause each chunk in the subset to be moved to its respective location.

33.   The memory medium of claim 32,

wherein each chunk in the plurality of chunks comprises a most frequently used chunk.

34.   The memory medium of claim 32,

wherein said performing the one or more file system calls results in the plurality of chunks being balanced across the plurality of storage devices.